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ABSTRACT

This book was written for practicing primary (elementary) school teachers and for anyone concerned with inservice or preservice science teacher education. The overall purpose of the book is to identify ways in which ideas about electricity and simple circuits can be taught effectively in primary school classrooms. This book is based on in-depth case studies of the teaching of electricity by three English primary school teachers in which children's understanding was investigated before and after instruction. The book describes the subject knowledge and teaching approaches that were used to develop children's understanding of this topic effectively. It also provides detailed accounts of the instruction and of the children's learning. The research identifies a set of electricity concepts that can be readily acquired by primary school teachers and taught effectively to children. Research also indicates numerous ways in which teachers can develop children's ideas successfully and some of the pitfalls to be avoided. Seven appendices contain a complete paper and pencil test, scoring procedures and criteria, a sample from interview transcripts and an example of a summary sheet, comparison of scores on paper and pencil tests with interview scores, and analogies for electric circuits and current direction. (PVD)

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